

REMARKS/ARGUMENTS

In this Action, made final, the Examiner rejected claim 5 under 35 U.S.C. §112, second paragraph, as being incomplete for not reciting the alternative options to conditional statements. In response, applicant has amended claim 5 to recite the alternative options. Applicant therefore requests that the Section 112, second paragraph, rejection of claim 5 as amended be withdrawn.

The Examiner rejected all claims under 35 U.S.C. §101 for being directed to abstract ideas. In response, applicant has amended the claims to recite updating of counters with scores or updating of machines with state-value lists. It is thus made clear that the claimed invention transforms a counter or a machine to a different state, and thus constitutes patentable subject matter under MPEP §2106 [IV][C][2] (Rev. 5, Aug. 2006).

Furthermore, applicant respectfully traverses this rejection as applied to claim 5. At line 12, claim 5 in its original form recites adding states and transitions to the machine, and thus already transforms a machine to a different state.

For these reasons, applicant requests that the Section 101 rejection of his claims as amended be withdrawn.

The Examiner also rejected all claims under 35 U.S.C. §103(a) over U. S. pat. no. 5,721,939 (Kaplan) in view of U.S. pat. no. 5,630,130 (Perotto et al.). This rejection is respectfully traversed.

The Examiner asserts that Kaplan teaches the invention as claimed, with the exception of not teaching the use of a multi-counter. The Examiner is mistaken.

Kaplan merely discloses that text can be represented by a finite-state machine, and that a plurality of texts can be represented by a single merged finite-state machine. A merged finite-state machine can be represented as a graph. (Column 4, line 65, to column 5, line 8.)

The Examiner summarily asserts that Kaplan teaches the invention as claimed, but he does not identify any specific relationships between elements of the claims and elements of Kaplan's disclosure. It's no wonder: the Examiner cannot do so, because Kaplan does not have corresponding elements.

For example, claim 1 recites a finite-state machine "augmented with state-value lists, where each state-value list indicates which counter of the multi-counter receives which value." Contrary to the Examiner's assertion, Kaplan does not disclose state-value lists and augmentation thereby of a finite-state machine. If the Examiner believes otherwise, then applicant requests that he identify the specific element of Kaplan's disclosure that is a state-value list.

Claim 1 further recites "accumulating the values of the states separately for each counter of the multi-counter, thereby producing a list of counter scores." Contrary to the Examiner's assertion, Kaplan does not disclose counters, accumulating of values of states for counters, or producing a list of counter scores. If the Examiner believes otherwise, then applicant requests that he identify the specific elements of Kaplan's disclosure that correspond to these claim elements.

Claim 2 recites a finite-state machine "augmented with state-value lists, where each state-value list indicates which patterns in which counters of the multi-counter are found when the state is entered." As was pointed out above with respect to claim 1, Kaplan does not disclose state-value lists and augmentation thereby of a finite-state machine.

Claim 2 further recites "producing a list of patterns for each counter." Contrary to the Examiner's assertion, Kaplan does not disclose counters or production of lists of patterns for counters. The Examiner points to Figs. 3-4 and column 8, lines 53-67, of Kaplan. But, in fact, neither counters nor production of lists of patterns for counters is disclosed there. If the Examiner believes otherwise, then he should specifically

identify the elements of Kaplan's disclosure that correspond to counters and lists of patterns for counters.

Claim 3 recites "converting state-values of states of the finite-state machines of the counters of the multi-counter into state-value lists of states of the merged machine." Contrary to the Examiner's assertion, Kaplan does not disclose counters, state-value lists, or conversion of counter state-values to state-value lists of merged machine states. The Examiner references Figs. 3 and 9, and column 11, line 49, to column 12, line 21, of Kaplan. There, Kaplan discloses how text is tokenized to construct a finite-state machine or transducer. Nevertheless, there is no teaching or disclosure of the elements mentioned above. If the Examiner believes otherwise, he should specifically identify the elements of Kaplan's disclosure that correspond to counters, state-values lists, and conversion of counter state-value into state-value lists of merged machine states.

Claim 4 recites the specific steps that applicant's invention takes to accumulate a finite-state machine of each counter into the augmented finite-state machine to form a merged machine in claim 3. The Examiner points to column 5, lines 16-32, of Kaplan as achieving the same result. But whether or not Kaplan achieves the same result or not is irrelevant. The issue is whether Kaplan discloses the same steps for achieving that result as does applicant's claim. Even the Examiner does not go so far as to assert that. Nevertheless, if the Examiner believes otherwise, then applicant requests that he identify the specific operations in Kaplan's disclosure that correspond to each individual step recited in claim 4.

Claim 5 recites, inter alia, adding states and transitions to a finite-state machine to prevent halting if the machine would halt when applied to a sequence of characters as a text, and "for a final state that would be reached by the machine supplemented with the added states and transitions, forming a state-value list if the final state lacks a state-value list, forbearing from forming a state-value list if the final state has a state-

value list, and adding to the state-value list a reference to the counter and the pattern value.” Contrary to the Examiner’s assertion, Kaplan does not disclose or teach adding transitions to a finite state machine to prevent halting, state-value lists and finite state machine final states having state-value lists, or adding references to counters and pattern values to state-value lists. The Examiner points to column 5, line 33, to column 6, line 7, of Kaplan. There, Kaplan discloses rules for tokenization patterns, used in tokenizing text. There is no teaching or disclosure of applicant’s claim elements mentioned above. If the Examiner believes otherwise, then applicant requests that he identify the specific elements of Kaplan’s disclosure that correspond individually to each of those claim elements.

From the above discussion, it should be evident that Kaplan does not teach the claimed invention.

The Examiner did concede that “Kaplan does not explicitly teach using multi-counters,” and cited Perotto et al. for this teaching. But the combination of Kaplan and Perotto et al. likewise fails to teach applicant’s claimed invention.

Perotto et al. disclose a multitasking controller that has a separate program counter, a separate accumulator, and a separate index register, for each one of a plurality of tasks. Thus, there is a bank of a plurality of individual program counters, another bank of a plurality of individual accumulators, and another bank of a plurality of individual index registers. A program counter points to a memory location containing the next instruction that is to be executed of its corresponding task (column 4, lines 4-6). An accumulator holds data associated with its corresponding task for use by the arithmetic and logic unit (column 5, lines 31-34). An index register stores an address employed by its corresponding task as an offset value for indexed addressing (column 5, lines 1-2 and 38-40).

Perotto et al. bear no relation either to Kaplan or to applicant’s claimed invention. Perotto et al. are concerned with efficient operation of

a multitasking controller, and not with the tokenization of text like Kaplan or with multi-counter evaluation like applicant. Nor do Perotto et al. disclose a multi-counter, as is made evident by the above discussion of the disclosure of Perotto et al.

Nevertheless, even if one assumes for purposes of argument that Perotto et al. do disclose a multi-counter, Perotto et al. still fail to cure the fundamental failure of Kaplan to disclose, teach, or suggest the claimed invention. Specifically, the combined teachings of Kaplan and Perotto et al. fail to disclose, teach, or suggest at least a state-value list and augmentation therewith of a finite-state machine, as is required in one form or another by the recitation of all applicant's claims.

For the reasons give above, applicant asserts that the combined teachings of Kaplan and Perotto et al. do not render applicant's claims unpatentable. Applicant therefore requests that the Section 103(a) rejection of his claims be withdrawn.

Lastly, applicant challenges the finality of this Office Action. The Section 101 rejection of applicant's claims appears in this Action for the very first time. This rejection was not necessitated by applicant's amendments to the claims made in response to the first Office Action. Rather, this rejection could and should have been made in the first Office Action. Consequently, the Patent Office's rules make it clear that this Office Action should not have been made final. MPEP § 706.07(a) (Rev. 5, Aug. 2006) states that the "second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement..." (emphasis added). Since the Section 101 rejection is a new ground of rejection that was not necessitated by applicant's amendment of the claims, and there is no IDS of the type referred to in the MPEP, it is

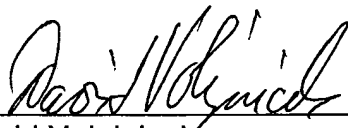
evident that making this Office Action final is an error. Applicant therefore requests that the finality of this Action be withdrawn.

The Examiner's rejections having been properly responded to and overcome, applicant suggests that the application is now in condition for allowance. Applicant therefore requests that the application be reconsidered and thereafter be passed to issue.

Applicant considers the foregoing to be dispositive of all issues in the application. But if the Examiner should deem that a telephone interview would advance the prosecution, he is invited to call applicant's attorney at the telephone number listed below.

Respectfully submitted,

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